MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 2, 2015/2016**

## BAC 1624 – MANAGEMENT ACCOUNTING 1

(All Section / Groups)

10th MARCH 2016
9.00 AM – 12.00 PM
(3 Hours)

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**INSTRUCTIONS TO STUDENT**

1. This Question paper consists of 7 pages (excluding cover page) with 5 Questions only.
2. Answer **ALL** Questions. Each question is worth 20 marks.
3. Please write your answers and workings in the Answer Booklet provided.

## QUESTION 1

Duta Consolidated Sdn. Bhd. uses the FIFO method in its process costing system. The following data concern the operations of the company's first processing department for a recent month.

| | |
|---|---|
| Work in process, beginning: | |
| Units in process | 100 |
| Percent complete with respect to materials | 90% |
| Percent complete with respect to conversion | 30% |
| Costs in beginning inventory: | |
| Materials cost | RM 153 |
| Conversion cost | RM 711 |
| Units started into production during the month | 25,000 |
| Units completed and transferred out | 24,400 |
| Cost added to production during the month: | |
| Materials cost | RM 37,200 |
| Conversion cost | RM 591,600 |
| Work in Process, ending: | |
| Units in process | 700 |
| Percent complete with respect to materials | 70% |
| Percent complete with respect to conversion | 40% |

**Required:**

i. Prepare a schedule showing physical units of production

(3 marks)

ii. Determine the equivalent units of production for materials and conversion cost

(8 marks)

iii. Determine the cost per equivalent units for materials and conversion cost and the total unit manufacturing cost.

(3 marks)

iv. Determine the cost of ending work in process inventory

(2 marks)

v. Determine the cost of units transferred out of the department during the month.

(4 marks)

**(20 marks)**

**Continued...**

## QUESTION 2

The CVP income statement for two different companies in the same industry is depicted below:

| | Alpha Sdn Bhd (RM) | Beta Sdn Bhd (RM) |
|---|---|---|
| Sales | 800,000 | 800,000 |
| Total Variable Cost | 320,000 | 160,000 |
| Contribution Margin | 480,000 | 640,000 |
| Total Fixed Cost | 140,000 | 300,000 |
| **Operating Income** | **340,000** | **340,000** |

**Required**

i. Compute the break-even point in ringgit for each company.

(2 marks)

ii. Explain why the break-even point for Beta Sdn Bhd is higher compared to Alpha Sdn. Bhd.

(2 marks)

iii. Compute the margin of safety ratio and explain the significances of the ratio for Alpha Sdn. Bhd. and Beta Sdn. Bhd.

(5 marks)

iv. Compute the degree of operating leverage for each company.

(2 marks)

v. Assume that sales revenue increases by 10%, prepare a variable costing income statement for each Company

(4 marks)

vi. Explain how the cost structure of these two companies affects their operating leverage and profitability.

(5 marks)

**(20 marks)**

**Continued...**

## QUESTION 3

PNB Computer Services Sdn. Bhd. specializes in computer servers for work group, e-commerce applications and enterprise resource planning (ERP) application. The Company's traditional cost system first accumulates its direct cost that is the direct material and direct labour cost for each job. Overhead is allocated to jobs at the single rate of RM 24.00 per direct labour hours.

A task force headed by the Chief Financial Officer (CFO) recently designed an ABC system with four activities. The ABC system retains the current system's two direct cost (i.e. direct materials and direct labour) categories. Thus, it budgets only overhead costs for each activity. The relevant data is as follows:

| Activity | Allocation Base | Cost Allocation Rate (RM) |
|---|---|---|
| Material handling | Number of parts | 0.90 |
| Machine setup | Number of setups | 510.00 |
| Assembling | Assembling hours | 70.00 |
| Shipping | Number of Shipments | 1,6 00 |

PNB Computer Services Sdn. Bhd. has been awarded two new contracts that will be produced as Job A and Job B. Budget data relating to the contracts is as follows:

| | Job A | Job B |
|---|---|---|
| Number of parts | 16,000 | 2,100 |
| Number of setups | 6 | 4 |
| Number of assembling hours | 1,600 | 220 |
| Number of shipments | 1 | 1 |
| Total direct labour hours | 9,000 | 700 |
| **Number of output units** | **100** | **10** |
| Direct material cost | RM 220,000 | RM 40,000 |
| Direct labour costs | RM 175,000 | RM 18,000 |

**Required**

i. Compute the product cost per output units for each of the job using the traditional costing system.

(6 marks)

ii. If PNB Computer Services Sdn Bhd adopts the activity based system, what is the product cost per output units for each jobs using activity based costing.

(8 marks)

**Continued...**

iii. A company has offered to produce both jobs for PNB Computer Services Sdn Bhd for RM 5,700 per output unit. PNB Computer Services Sdn Bhd may outsource (buy from this outside company) Job A only, Job B only or both jobs. Which course of action will PNB Computer Services Sdn Bhd managers take if they based their decision on:

(a) The traditional cost system

(3 marks)

(b) Activity base cost system

(3 marks)

**(20 marks)**

## QUESTION 4

### Part A

Toys Sdn Bhd manufactures and distributes toys to various Asian countries. One of its main product is teddy doll which is popular amongst children. Each of this product is coated with a special solvent to make it safe for children to play with. Three (3) cubic centimetres (cc) of solvent C 200 is required to manufacture each unit of teddy doll.

To keep production and sales moving smoothly, the company has the following inventory requirements:

1. The finished goods inventory on hand at the end of each month must equal to 3,000 units of teddy dolls plus 20% of next month's sales. The finished goods inventory on June 30 is budgeted to 10,000 units.

2. The raw materials inventory on hand at the end of each month must be equal to one-half of the following months production needs for raw materials. The raw materials inventory on June 30 is budgeted to be 54,000 cc of solvent C 200.

3. The company does not maintain any work-in process inventory.

**Continued...**

4. A sales budget for Toys Sdn Bhd for the last six months of the year is as follows:

| | Budgeted sales (units) |
|---|---|
| July | 35,000 |
| August | 40,000 |
| September | 50,000 |
| October | 30,000 |
| November | 20,000 |
| December | 10,000 |

**Required**

i. Prepare a production budget for Toys Sdn Bhd for the month of July, August & September.

(6 marks)

ii. Prepare a direct material budget showing the quantity of C 200 to be purchased for the month of July, August & September.

(6 marks)

**Part B**

The spare parts division of Ellyway Auto Manufacturing Sdn Bhd provided the following income statement for last year:

| | RM |
|---|---|
| Sales | 6,000,000 |
| Variable Cost | 3,600,000 |
| Controllable fixed cost | 1,800,000 |
| Average operating assets | 7,000,000 |

The divisional manager is not satisfied with the spare parts division's return on investment (ROI). He is considering the following independent course of action:

1. Increase sales of the division by RM 400,000 with no change in the contribution margin percentage.
2. Reduce variable cost by RM 300,000.
3. Reduce average operating assets by 6%

**Continued...**

**Required**

i. Compute the ROI for the current year.

(1 mark)

ii. Using the ROI formula, compute the ROI under each of the proposed course of action. *(Round to one decimal point)*

(6 marks)

iii. Recommend the best course of action to be taken.

(1 mark)

**(20 marks)**

**QUESTION 5**

(a) Explain the difference between an ideal standard and a normal standard

(2 marks)

(b) Oriental Ceramics Sdn Bhd manufactures ceramic teapots. It allocates overhead based on the number of direct labor hours. The company uses standard cost system and has developed the following standards (one 'unit' is a batch of 100 teapots).

| **Standards:** |
|---|
| Direct material 60 pounds per batch at RM 5.00 per pound. |
| Direct labour 2.0 hours per batch at RM 13.00 per hour. |
| Variable manufacturing overhead rate is RM 7.00 per direct labour hour. |
| Predetermined fixed manufacturing overhead standard rate RM 5.00 per direct labour. |

| **Actual cost and operating data for the most recent month:** |
|---|
| Purchased 4,260 pounds at a cost of RM 4.90 per pound. |
| Used 4,200 pounds in producing 60 batches. |
| Actual direct labour cost of RM 2,070 at an average direct labour cost per hour of RM 13.80. |
| Actual variable manufacturing overhead costs RM 1,125 |
| Actual fixed manufacturing overhead costs RM 1,550 |

All manufacturing overhead cost is allocated on the basis of direct labour hours.

**Continued...**

**Required**

i. Calculate the standard cost of one batch.

(4 marks)

ii. Calculate the following variances

(a) Compute the material price variance

(b) Compute the material quantity variance

(c) Compute the labour price variance

(d) Compute the labour quantity variance

(e) Compute the total overhead variance

(10 marks)

iii. Show the relevant journal entries for material price and quantity variance and the labour price and quantity variance.

(4 marks)

**(20 marks)**

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